

# Smarrivers



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16 January 2006

Committee Secretary  
Senate Rural and Regional Affairs and Transport Committee  
Department of the Senate  
Parliament House  
Canberra ACT 2600

Dear Sir/Madam

## **Senate Rural and Regional Affairs and Transport**

### **Inquiry into Water Policy Initiatives**

This submission particularly addresses item b. of the Terms of Reference:

*“The impact on rural water usage of recent water policy initiatives and the possible role for Commonwealth agencies, with particular reference to methods of protection for rivers and aquifers.”*

#### **Summary**

1. Water resource planning is currently based on extremely poor estimates of the environmentally sustainable yield.
2. Lack of ecological data has led to the use of expert panels as the “best scientific information available”, the invoking of the Precautionary Principle and academically developed rules of thumb such as “2/3 natural” as the ecological basis of water resource planning.
3. Without clear processes to estimate the environmentally sustainable yield it is very unlikely that water resource plans might be revised in favour of users and agricultural production could be unnecessarily limited.
4. Ecological data is urgently required in order to either confirm or refute the suggested impacts of water resource development, to act as the feedback loop to managers with respect to environmental flow strategies and to assist interpretation of the general health of our rivers and the various factors that affect that health (not just flow).
5. Stakeholders need to be empowered in the planning process through sharing ownership of data and understanding the significance of the data.

6. Management should be knowledge-based and data is knowledge. Currently we have very little data so management will remain largely based on supposition and inference. Given the value of water and of irrigated agriculture, this is unacceptable.
7. Current water policy places very little emphasis on ecological data so the situation is unlikely to change.
8. Significant opportunities exist to establish suitable monitoring programs through coordination of existing programs and leveraging funds from those who currently require the data and those who will benefit from it in the future (Stakeholders, CMA's, local government, State government agencies).
9. Many stakeholder groups are very keen to implement monitoring programs and to understand the data but in Queensland at least, the State agencies and Regional bodies are not committing to collection of basic ecological data. Through its funding initiatives the Federal government should place emphasis on this important task and mandate that Regional bodies, or CMA's establish such programs.

Smartrivers submits that agricultural productivity will eventually be limited because much of the focus of water policy is on returning water to the environment. The media focus on the Murray River and the heavily utilised southeast of Australia has led to a policy focus that, while probably correct for these rivers, is being applied incorrectly elsewhere. It is far more important in these other areas to provide sound estimates of the sustainable yield before locking in unnecessarily harsh restrictions.

With respect, we understand the term "protection" was meant to refer to ecology, that is, what methods can be used to protect the ecology of rivers? Through capping total water use or through prescribing environmental flows, water resource management is one form of protection but there are others and Smartrivers believes there has been little or no assessment of these alternatives and how they might interact with flow management. Water Resource Plans and the like have effectively relied upon flow management as the sole means of river management and have therefore underestimated the true sustainable yield from many systems.

An alternative view is that "protection" refers to the water resource itself and protection of it for the highest use. Water planning processes have not taken this issue into account and the way to do so is through involving the community in the planning process. Some rivers or sections of rivers need to be totally preserved for environmental purposes while others should be utilised to the maximum extent because they are in the right agricultural, urban or industrial location. The trade-offs between levels of development, societal benefit and environmental protection need to be done at a large scale and this will require Commonwealth involvement, particularly where river basins cross State borders. Catchment stakeholders need to be truly involved in the decision making process with respect to where their catchment lies on the protection continuum. In order to understand the ecological consequences of trade-offs, stakeholders need to access good data and unbiased interpretations of that data.

When the current round of plans come up for revision in the next decade, how will we know if the volumetric caps and flow strategies have been successful or if there is room to extract more water from some rivers while others should be afforded greater environmental protection? There is no firm ecological basis for estimating the sustainable yield. The situation is so poor that agencies have resorted to "rules of thumb" such as the CRC for Freshwater Ecology's "*two-thirds of natural*" guideline. This was used as the scientific basis of the estimate of the volume to be returned to the Murray River through the Living Murray Process and it was also used in the Water Resource Plan for the Border Rivers in Queensland. Murray Irrigation sponsored a review of the science behind the Living Murray process and that review showed conclusively that not only was there no scientific basis for the estimate, but what "evidence" had been used

was in fact misinterpreted by the scientific reference panel. This was not a question of differences of opinion between scientists but a series of clear errors by the panel. Sometimes the best scientific opinion available simply isn't good enough and real data is needed to avoid relying on supposition.

The Living Murray process of returning water to the environment is worth many hundreds of millions of dollars yet its basis is no better than a rule of thumb with no scientific foundation. How can the future of irrigated agriculture, or water use generally, be based on such poor knowledge? When undertaking an engineering project worth the same amount of money this lack of foundation simply would not be tolerated but for some reason it passes as acceptable with respect to environmental decisions. It also means that those academic scientists who tend to be most used on expert panels wield an incredible amount of power.

Neither is there reasonable data upon which to base decisions regarding acceptance of the ecological condition of rivers. The MDBC has recently instigated the Sustainable Rivers Audit and while this is an excellent initiative, samples are collected too intermittently to be of much use to management. In Victoria, CMA's use the Index of Stream Condition and this again is a very good data collection tool that gives managers information on a range of issues related to river management, not just flow management. This style of monitoring should be implemented throughout the developed or developing catchments of Australia, managed by the CMA's or Regional Bodies and in consultation with their local stakeholders. The Federal funding to these bodies needs to clearly mandate ecological monitoring as a primary purpose of the funding. The alternative of directing such funding to academic or research institutes via normal granting processes should be avoided as this will only perpetuate the problem of a few academics controlling the knowledge. Those institutes can compete against government agencies and private enterprise organizations for conduct of the management orientated monitoring programs.

At the moment the Australian Government Water Fund emphasises better information on our water resources through the Raising National Standards program; but this targets the measurement of how much water we have. It does not emphasise the other side of the management equation; how much water does the environment need?

Monitoring of our aquatic ecosystems would not just serve a role in advising water management plans but as feedback to all facets of catchment management. Rivers react to the entire catchment so management of land use, urban runoff and pollution issues can all benefit from knowledge of the trends in ecological condition of our waterways. Coordination between groups currently conducting monitoring needs to be greatly improved eg Local government, State government, CMA's, mining companies etc as duplication of effort and a failure to share existing data causes unnecessary cost.

States undertake significant monitoring of water quality and volume but there is little ecological monitoring and what there is bears little if any relationship to current management needs. The latest plans for monitoring environmental performance under Resource Operations Plans in Queensland aim not to monitor any biological aspect of river health, instead relying on assumed relationships between flow strategies and environmental outcomes. It is a ridiculous situation when protection of the environment is meant to be a key driver of the water planning process yet no-one wants to take responsibility for monitoring or establishing a knowledge base with respect to that key driver.

Smartdrivers took up the monitoring cudgels over 5 years ago because no one else was doing it and that data has shown itself to be invaluable. Through independent reviews chaired by Prof Peter Cullen and even court cases, the data showed that initial "expert panel" assessments of the

ecological health of the river were entirely wrong and water use did not need to be cut by the massive percentages suggested by some parties. Knowledge is far more valuable than inference or “expert” opinion. Continued monitoring allows local stakeholders to react to any observed trends and these reactions may not only be related to water resource management. Land management issues are undoubtedly a key driver of change in aquatic environments.

Monitoring is not dead money; it is simply good management practice. All businesses monitor their performance and they monitor the impact of management decisions.

To ensure the correct balance between uses of benefit to society and those of benefit to environmental protection, we need data on the current ecological condition of our rivers and the range of impacts that currently affect it. The risk is that with no accepted means of determining these attributes the level of currently approved extraction has no possibility of increase.

We thank the committee for its consideration of our response and members are available for comment should that be required.

Yours sincerely

**RICHARD LOMMAN / HAMISH MCINTYRE**  
**Presidents**